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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,607	07/30/2002	John Herbert Wood	17MY-7089	6852

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HARTMAN & HARTMAN, P.C.  
552 EAST 700 NORTH  
VALPARAISO, IN 46383

EXAMINER

SHEEHAN, JOHN P

ART UNIT            PAPER NUMBER

1742

DATE MAILED: 03/31/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/064,607	WOOD ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	John P. Shahan	1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-20 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
  - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 .	6) <input type="checkbox"/> Other: _____

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 4 to 10, 12 to 16 and 18 to 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood et al. (Wood, US Patent No. 4,810,467, cited by the applicants in the IDS submitted July 30, 2002).

Wood teaches castable and weldable nickel-based alloys for use in gas turbine nozzle applications (column 1, lines 6 to 10) as recited in applicants' claims 1 to 20 and particularly claims 7, 8, 14, 15, 19 and 20. Wood teaches an alloy composition containing the same element components as recited in the instant claims in proportions that overlap the applicants' claimed proportions (column 4, Table 2, the column entitled, "Acceptable Melt Chemistry Range"). Applicants' claimed proportions for Co, Cr, W, Al, Ti, B and C are exactly the same as Wood's proportions for these elements. Wood teaches that the strength of the alloy is dependent on the amount of gamma prime forming elements (Al+Ti+Ta+Cb) present in the alloy (column 3, lines 25 to 30) and that to have the necessary strength the alloy should contain about 28 volume percent of the

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gamma phase (column 3, lines 35 to 40) which gamma content is encompassed by applicants' claims 6, 13 and 18.

Wood and the claimed invention differ in that although teaching the exact same proportions for each of the elements Co, Cr, W, Al, Ti, B and C Wood teaches overlapping proportions for each of Cb and Zr, is silent with respect to the Cb-Ta relationship and requires the use of Ta.

However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because Wood's alloys, as explained above, have the same utility, the same phase structure and proportions that are exactly the same as applicants for each of the elements Co, Cr, W, Al, Ti, B and C and overlap with respect to each of the remaining elements and therefore are considered to establish a *prima facie* case of obviousness, *In re Malagari*, 182 USPQ 549 and MPEP 2144.05. With respect to claims 4 and 10 which recite a "tantalum content of about 0.0%" (emphasis added by the Examiner) it is the Examiner's position that applicants' use of the word "about" in defining the tantalum content reads on tantalum contents of greater than 0.0% and therefore does not distinguish over the tantalum content of 0.5 to 3% taught by Wood (column 4, Table 2, the column entitled, "Acceptable Melt Chemistry Range").

3. Claims 1 to 10, 12 to 16 and 18 to 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaw (US Patent No. 4,039,330).

Shaw teaches castable nickel-based alloys for use in gas turbine applications (column 1, lines 5 to 7 and column 7, lines 10 to 15) as recited in applicants' claims,

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particularly claims 7, 8, 14, 15, 19 and 20. Shaw teaches an alloy composition containing the same element components as recited in the instant claims in proportions that overlap the applicants' claimed proportions (column 1, lines 45 to 59). Shaw teaches that the strength of the alloy is dependent on the co-presence of Al, Ti, Ta and Cb (column 2, lines 4 to 10).

Shaw and the claimed invention differ in that Shaw does not teach the exact same proportions and is silent with respect to the presence of the gamma phase recited in claims 6, 13 and 18.

However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because Shaw's alloys, as explained above, have the same utility and proportions that overlap the instant claims and therefore are considered to establish a *prima facie* case of obviousness, *In re Malagari*, 182 USPQ 549 and MPEP 2144.05. Further, in view of the fact that Shaw's alloys overlap the instantly claimed alloy, that is, are similar to the instantly claimed alloys, Shaw's alloys would be expected to possess all the same properties as recited in the instant claims including the presence of the gamma phase, *In re Best*, 195 USPQ, 430 and MPEP 2112.01.

"Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a *prima facie* case of either anticipation or obviousness has been established, *In re Best*, 195 USPQ 430, 433 (CCPA 1977). 'When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.' *In re Spada*, 15 USPQ2d 655, 1658 (Fed. Cir. 1990). Therefore, the *prima facie* case can be rebutted by evidence showing that the prior art products do not

necessarily possess the characteristics of the claimed product. In re Best, 195 USPQ 430, 433 (CCPA 1977)." see MPEP 2112.01.

With respect to claims 4, 10 and 16 which recite a "tantalum content of about 0.0%" (emphasis added by the Examiner) it is the Examiner's position that applicants' use of the word "about" in defining the tantalum content reads on tantalum contents of greater than 0.0% and therefore does not distinguish over the tantalum content of 0.5 to 3 taught by Shaw (column 1, line 54).

With respect to claim 3 which recites that "the tantalum content is less than 0.5%" it is the Examiner's position that "less than 0.5%" reads on 0.4999999% Ta and is not considered to distinguish over Shaw's lower Ta limit of 0.5%.

4. Claims 1 to 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (Smith, US Patent No. 6,258,317).

Smith teaches nickel-based alloys for use in gas turbine applications (column 8, lines 59 to 61) as recited in applicants' claims 1 to 20 and particularly claims 7, 8, 14, 15, 19 and 20. Smith teaches an alloy composition containing the same element components as recited in the instant claims in proportions that overlap the applicants' claimed proportions (column 2, lines 12 to 21), including the optional use of tantalum. Smith teaches that the alloy contains the gamma phase (column 7, lines 40 to 42)

Smith and the claimed invention differ in that Smith does not teach the exact same proportions.

However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because Smith's alloys, as explained above, have the same utility and proportions that overlap the instant claims

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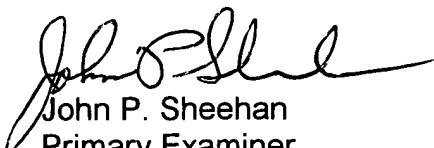
and therefore are considered to establish a prima facie case of obviousness, In re Malagari, 182 USPQ 549 and MPEP 2144.05

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Sheehan whose telephone number is (703) 308-3861. The examiner can normally be reached on T-F (6:30-5:00) Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (703) 308-1146. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.



John P. Sheehan  
Primary Examiner  
Art Unit 1742

jps  
March 24, 2003